

CLAIMS:

1. A device for transmitting a beam of material in particulate form
- 5 comprising an outer bell-shaped member which is rotatable about a principal axis and arranged to project a conical curtain of small particles flowing generally towards a target,
- 10 supply means for supply of material from a reservoir source and centrally outwards from said principal axis and towards a peripheral internal shaping region of said outer bell-shaped member to create said conical curtain of small particles
- 15 characterised in that an inner rotary bell-shaped member is provided coaxially with said outer bell-shaped member and is arranged to rotate at a different rate to that of said outer bell-shaped member so that at least a major
- 20 part of the material emerging from said supply means is subject to differing rotary forces imparted by both the inner and outer rotary bell-shaped members.
2. A device for transmitting a beam of material
- 25 according to Claim 1 in which each bell-shaped member is

integral with an air turbine which is driven by air pressure to rotate said bell-shaped member.

3. A device for transmitting a beam of material  
5 according to Claim 1 or 2 in which each bell-shaped member is arranged to be supported and rotated on air bearings, and the bearings are supplied with air via conduits which are separate from conduits supplying air to the air turbines, so that the bearings are supplied  
10 with air separately from the air turbines.

4. A device for transmitting a beam of material according to any preceding claim comprising a centrally located rotary diffuser disc for transmission of material  
15 from said supply means and to the inner rotary bell-shaped member.

5. A device according to Claim 4 which includes a centrally located rotary deflector which is arranged to  
20 deflect at least some of the emergent material into contact with an internal surface of said inner bell-shaped member.

6. A device according to Claim 5 in which said diffuser  
25 disc and said deflector are integral with said inner

bell-shaped member so as to rotate therewith.

7. A device according to Claim 6 in which said disc has apertures therethrough so that some of said material can pass through said apertures and onto an external face of said disc so as to be forced outwards centrifugally towards the outer bell-shaped member.